

## CHEMICAL HAZARDS PROGRAM Environmental Health Branch

Georgia Department of Community Health Atlanta, GA



Technical Assistance

**Dodge County** 

## Eastman CCI March 11, 2008

The Georgia Division of Public Health (GDPH) received a copy of an e-mail addressing concerns regarding a possible cancer cluster in Eastman, GA dated December 12, 2007, from the U.S. Environmental Protection Agency (EPA). In the email, a Florida resident states that her niece, and at least 15 other people that she knows who live within a mile or two from her niece, have been diagnosed with cancer in the past 2.5 to 3 years. She is concerned that there may be some kind of environmental link to these cancers from exposure to contaminants in air, water, and soil. She also requested in her e-mail that someone be sent to her niece's residence to test the air, soil, and water.

The causes of various types of cancers are hard to pinpoint. According to the American Cancer Society (ACS) and other sources, one out of three Americans now living will eventually develop cancer. Cancer is the second leading cause of death in the United States following heart disease. Given the frequency of cancer diagnosis among all Americans, it is not surprising to know that many several individuals within the neighborhood have a cancer diagnosis. Cancer is a group of more than 100 diseases characterized by uncontrolled growth and spread of abnormal cells. Different types of cancers have differing rates of occurrence, different causes and chances for survival. Therefore, we cannot assume that all the different types of cancers in a community or workplace share a common cause or can be prevented by a single intervention. While cancer occurs in people of all ages, new cases of most types of cancer rise sharply among people over 45 years of age.

Cancer may be caused by a variety of factors acting alone or together, usually over a period of several years. Scientists estimate that most cases if cancer are due to factors related to lifestyle factors, which increase the risk for cancer including: smoking cigarettes, drinking heavily, and diet (excess calories, high fat, and low fiber). Other important cancer risk factors include reproductive patterns, sexual behavior, and sunlight exposure. A family history of cancer may also increase a person's chances of developing cancer. Many people believe that cancer is usually caused by toxic

substances in the home, community, or workplace. Although we do not currently know the exact impact of environmental pollutants on cancer development, less than 10% of cancers are estimated to be related to toxic exposures. For those instances in which cancer is due to contact with a cancer causing agent, the disease does not develop immediately. Instead, often 10 to 30 years elapse between the exposure to a carcinogen (a cancer causing substance) and a cancer diagnosis. This makes it very difficult to pinpoint what caused the cancer because the types of cancer we see now are usually related to a lifetime of certain habits or exposures to carcinogens many years ago.

Since the 1970s when state cancer registries were first being organized, many public health scientists and citizens hoped that anecdotal observations of clusters of cancer in the community might lead to prevention of new cases via discovery of specific causes of these cancers. Since then, thousands of investigations have taken place throughout the country, mainly conducted by state, local, or federal agencies. With one or two possible exceptions involving childhood cancers, none of these investigations have lead to the identification of the causes of any of these possible clusters, even when a statistically elevated number of cancers in a geographic area could be documented. The Georgia Division of Public Health is developing strategies for active cancer surveillance. We hope that once we achieve complete, accurate and timely reporting, the Georgia Comprehensive Cancer Registry will be able to systematically identify cancer patterns in the entire Georgia population. This systematic approach to monitoring cancer trends in our state will lead to more opportunities for prevention and control of cancer in Georgia.

We did not identify any specific or suspected environmental contamination that may be an exposure pathway for chemicals that can cause cancer. We searched the Georgia Hazardous Site Inventory and CERCLIS, and there were no hazardous waste sites within one mile of the woman's niece's address. The GDPH, the Georgia Environmental Protection Division (GEPD), and the US



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EPA does not generally conduct environmental testing at individual residences. If individuals are concerned about environmental contamination they can contact an environmental or hazardous water contractor to conduct air, soil, and water sampling at their own expense.

In response to the woman's concern about a potential cancer cluster, we contacted the GDPH Cancer Control Section analyze the cancer statistics in the area to determine if there are an elevated number of cases of cancer, compared to the rates in Dodge County and the State of Georgia.

## Conclusions

In summary, there are no cancer types that are found for the county or zip code that have significantly higher rates or numbers of cases than found across the state